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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,045	12/11/2001	Ramesh Sundaram	S01.12-0881	7113

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EXAMINER

NOLAND, THOMAS

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/015,045	<b>Applicant(s)</b> SUNDARAM ET AL.	
	<b>Examiner</b> Thomas P. Noland	<b>Art Unit</b> 2856	<i>MW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17,22,24 and 25 is/are allowed.
- 6) ☒ Claim(s) 11-16,18-21,23 and 26 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
    a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
    1. ☐ Certified copies of the priority documents have been received.  
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
    \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
    a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                            | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2856

1. The amendment filed Oct. 20, 2003 has been entered.
2. Claims 11, 14, 19-20, 23 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Voldman et al US 5,559,051.

Note col. 2, lines 28-43 and Figs. 1. Use of both multiple rows and columns is clearly disclosed. Applicant's argument that the air bearing surface are not on the wafer have been noted. However it appears that the rows and columns are still on the wafer as the air bearing surfaces are being formed.

Re claim 14 herein note claim 7 of Voldman et al.

Re claim 20 Voldman clearly has the structure of the claimed asperity detection system and could thus inherently be considered to be such.

re claim 26 Voldman et al discloses the use of conventional techniques and lapping is a form of milling.

3. Claims 12-13, 15-16, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voldman et al US 5,559,051 in view of Smith, Jr. US 6,112,401.

Voldman et al does not specifically set forth the use of rails, the particular dimensions claimed or that the transducers could be piezoelectric transducers. However, such would have been an obvious expedient to have been produced with a manufactured glide head array similar to that of Voldman et al since such features are known to be useful in similar glider/slide head systems as evidenced by Smith, Jr. especially in col. 3, lines 49-67; col. 4, lines 41-43; col. 7, lines

Art Unit: 2856

1-30 and col. 11, lines 5-18 therein and thus in corporation thereinto would have been obvious in view of the known utilities of such features.

4. Claims 12-13, 15-16, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voldman et al US 5,559,051 in view of Aylwin et al US 5,452,166.

Aylwin et al is applied analogously to Smith, Jr. in the previous rejection. Note especially col. 6, line 44-col. 8, line 7 in Aylwin et al.

5. Claims 17, 22 and 24-25 have been allowed.

6. Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's arguments filed Oct. 20, 2003 have been fully considered but they are not persuasive. Applicant appears to be arguing that the air bearing surfaces are not formed while the rows and columns are still on the wafer. There appears to be no statement that this is the case in Voldman et al. Applicant's other arguments are believed adequately addressed in the rejections.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2856

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

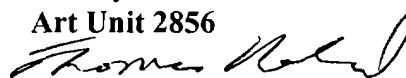
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Noland whose telephone number is (703) 305-4765. Beginning January 28, 2004 telephone number (571) 272-2202 should be used. The examiner can normally be reached on weekdays from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached on (703) 305-4705. Beginning Jan. 28, 2004 his telephone number will be (571) 272-2208.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

**Thomas P. Noland**  
**Primary Examiner**  
**Art Unit 2856**



tpn  
Jan. 9, 2004